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Device for measuring the load-dependent torsion of a rotating shaft

Patent number:	DE3714150
Publication date:	1988-11-17
Inventor:	MAJIC MILIVOJ (DE)
Applicant:	STABIL ELEKTRONIK GMBH (DE)
Classification:	
- international:	G01L3/10; G01L5/24
- european:	B25B23/14, B25B23/145C, B25B23/147
Application number:	DE19873714150 19870428
Priority number(s):	DE19873714150 19870428

Abstract of **DE3714150**

A device for measuring the load-dependent torsion of a rotating shaft (6), which has a sensor arrangement (40), rotating with the shaft, for generating an electric measurement signal which reproduces the instantaneous torsion, comprises sliprings (72) which rotate along with the shaft and from which the measurement signal is tapped with the aid of slip brushes (73) and passed on to a fixed electronic unit (78) comprising an amplifier for the measurement signal. In order to keep as low as possible the mechanical wear on the sliprings and slip brushes and the impairment of the measurement signal induced thereby, the sliprings are arranged in the region of a shaft section (70) which does not transmit any torque, with the result that the diameter of the slipring contact surfaces can be substantially smaller than the outside diameter of the shaft sections used to transmit torque. Such a device can be used in a particularly advantageous way in an angle scanning unit (1), where it permits torsion to be measured directly on the output shaft.